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Global Polio Eradication Initiative

Strategic Plan 2001 – 2005

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Copies may be requested from:
World Health Organization
Department of Vaccines & Biologicals
CH-1211 Geneva 27, Switzerland
Fax: + 41 22 791 4192 • E-mail: polioepi@who.int

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Glossary of key terms and abbreviations

AFP	**acute flaccid paralysis**
AFR	**African Region**
AMR	**Region of the Americas**
EMR	**Eastern Mediterranean Region**
EPI	**Expanded Programme on Immunization**
EUR	**European Region**
NIDs	**national immunization days**
OPV	**oral polio vaccine**
SEAR	**South-East Asia Region**
SIAs	**supplementary immunization activities (e.g. NIDs, SNIDs, mop-up campaigns)**
SNIDs	**subnational immunization days**
WHO	**World Health Organization**
WPR	**Western Pacific Region**

Global polio priority countries:

- **Reservoir countries:** (Bangladesh, Democratic Republic of the Congo, Ethiopia, India, Nigeria, Pakistan). These countries are characterized by large high-density populations, high birth rates, low routine immunization coverage in at least some areas of the country, and suboptimal sanitation. With intense poliovirus transmission and large numbers of cases, they serve as "global reservoirs" of poliovirus, exporting poliovirus to neighbouring countries.

- **Conflict-affected countries:** (Afghanistan, Angola, Democratic Republic of the Congo, Somalia and Sudan). The ongoing conflict in these countries makes implementation of vaccination and surveillance activities particularly challenging, compounded by a destroyed/weakened infrastructure.

Interagency coordinating committees (ICCs): committees which are established to review financial resource requirements, coordinate the input of partner agencies and devise strategies for meeting the funding shortfalls. ICCs also monitor progress toward polio eradication and facilitate feedback to national decision-makers.

Polio eradication strategies:

1. **High routine infant immunization coverage with OPV:** routine immunization is the foundation of the eradication initiative. All countries aim to immunize at least 90% of infants with four OPV doses by one year of age through routine immunization services. These doses are part of the basic immunization coverage recommended by the WHO Expanded Programme on Immunization (EPI) to protect children against major causes of morbidity and mortality in childhood, which include polio, diphtheria, pertussis, neonatal tetanus, measles, tuberculosis, hepatitis B and yellow fever. High routine immunization coverage decreases the incidence of polio and sets the stage for eradication.

2. **National immunization days:** NIDs are the most important activity for interrupting wild poliovirus circulation in endemic countries. During NIDs all children aged less than five years in a country receive two doses of OPV one month apart, regardless of their prior immunization status. NIDs are needed for at least three consecutive years to interrupt transmission. NIDs are a strategy for interrupting wild poliovirus transmission; they are not a strategy for increasing routine immunization through campaigns. Subnational immunization days (SNIDs) are similar to NIDs but target children for polio vaccination in specific high-risk regions of countries rather than the entire country.

3. **Acute flaccid paralysis (AFP) surveillance and laboratory investigation:** AFP surveillance is established in all polio-endemic or recently endemic countries to ensure that all cases of poliomyelitis are detected. The goal of AFP surveillance is to report and investigate "any case of acute flaccid (floppy) paralysis, including Guillain-Barré Syndrome, in a child aged less than 15 years and any case of suspected polio in persons of any age". A number of indicators have been established to monitor the performance of AFP surveillance systems. Most importantly, even in the absence of wild poliovirus circulation, surveillance systems should be capable of (1) detecting at least one case of AFP per 100 000 population aged less than 15 years; (2) collecting adequate stool specimens from at least 80% of AFP cases, and (3) testing all specimens at a WHO-accredited laboratory.

   An international laboratory network has now been established under the auspices of WHO, consisting of national laboratories which undertake virus isolation and identification, regional reference laboratories which differentiate wild and vaccine viruses, and specialized reference laboratories which support the network and conduct genetic sequencing studies on wild viruses to assist the identification of routes of transmission. All network laboratories must successfully complete an accreditation process and use established indicators to monitor their performance.

4. **Mop-up campaigns:** AFP surveillance data are used to identify the final chains of wild poliovirus transmission in each geographical area. In these areas, two doses of OPV are administered to all children aged less than five years, regardless of their prior immunization status, by immunization teams that go house-to-house. These intensive immunization campaigns improve coverage and ensure that the most difficult-to-reach children are immunized, thereby interrupting the last chains of wild poliovirus transmission. In addition to delivering supplemental OPV doses, mop-up activities often include an active search for AFP cases.

Executive summary

Extraordinary progress has been made toward global eradication of poliomyelitis. Only 30 countries were considered endemic at the end of 1999, down from 50 in 1998. In contrast, it required a decade to reduce the number of endemic countries from 125 in 1988 to 50 in 1998. However, polio transmission is likely to occur in up to 20 endemic countries after 2000, and considerable work remains to achieve polio eradication. If high-quality activities are rapidly undertaken, the 2005 target of certifying the world polio-free can be met – with subsequent annual savings of US$ 1.5 billion due to cessation of vaccine administration and averted health care costs.

The eradication of polio requires a programme of work which includes strategic implementation in polio-endemic countries and aggressive laboratory containment of poliovirus stocks in industrialized countries. In order to realize the full humanitarian and economic benefits of polio eradication, the agenda needs also to extend to international consensus building of future immunization policy. The Strategic Plan 2001–2005 defines the five main categories of activities necessary to realize polio's eradication and the certification of eradication in 2005, as follows:

- **Conduct effective and high-quality national immunization days (NIDs), and mop-up campaigns to interrupt wild poliovirus transmission.**
- **Develop and sustain certification-standard surveillance and laboratory systems that can rapidly identify polio-infected areas.**
- **Ensure laboratory containment of wild poliovirus stocks.**
- **Develop a consensus strategy to stop polio immunization after certification of eradication.**
- **Use polio eradication to strengthen and expand routine immunization services.**

The single greatest factor determining when polio will be eradicated is the quality of supplementary immunization activities (SIAs) and surveillance. Poor quality activities will result in incomplete coverage during NIDs, and late detection of polio-infected areas. These problems are compounded by low routine immunization coverage in many countries.

Three key challenges must be overcome to ensure that high-quality eradication activities are implemented:

- Securing access to all children, including those in conflict-affected countries and areas.
- Ensuring adequate financial resources from the public and private sectors to meet the US$ 450 million shortfall.
- Maintaining political commitment in both endemic and polio-free countries.

The success of the Global Polio Eradication Initiative has been due to the combined efforts of a strong public/private sector partnership, spearheaded by the World Health Organization (WHO), Rotary International, the Centers for Disease Control and Prevention (CDC), and the United Nations Children's Fund (UNICEF), and including national governments, nongovernmental organizations, corporations and many individuals throughout the world. The challenges outlined in this plan can be surmounted, but only if current and new partners commit their support through 2005. ❐

1. Background

This Strategic Plan 2001–2005 updates the Plan of Action for Global Poliomyelitis Eradication by the year 2000.[1] *The purpose of this Strategic Plan is to define the broad agenda of work that will be needed over the next five years to ensure polio's eradication, to certify global poliomyelitis eradication in 2005, and to develop consensus on when and how to stop administration of polio vaccines. The activities in this Strategic Plan provide the framework for partner governments and agencies to achieve these goals. Details of each area of work are available through references provided in this document.* ❐

1.1 Progress and current status of the Global Polio Eradication Initiative

In May 1988, the Forty-first World Health Assembly committed Member States and the World Health Organization to the global eradication of poliomyelitis, emphasizing that eradication "should be pursued in ways that strengthen the development of the Expanded Programme on Immunization as a whole, fostering its contribution, in turn, to the development of the health infrastructure and primary health care."[2] The 1990 plan of action from the World Summit for Children reaffirmed this goal.[3] A broad coalition of partners, spearheaded by WHO, Rotary International, CDC, and UNICEF was established to achieve polio eradication. The target for global eradication was set as the end of the year 2000, with certification of eradication in 2005. Once polio is eradicated no child will ever again be crippled by polio, no family will know the suffering of a crippled child, and the world will save an estimated US$ 1.5 billion per year from the cessation of immunization and averted health care costs.[4]

Extraordinary progress towards polio eradication has been made since 1988. Poliomyelitis transmission has been interrupted in the WHO regions of the Americas, Europe and Western Pacific. More than 175 countries are now polio-free. Worldwide, the number of cases has declined by more than 95% since the initiative began from an estimated 350 000 cases in 1988 to 7092 reported cases during 1999.[5]

In May 2000, the Global Technical Consultative Group for the Eradication of Poliomyelitis (TCG) reviewed the status of polio's eradication and reaffirmed that there had been unprecedented progress.[6] Only 30 countries were considered endemic at the end of 1999 (Figure 1), down from 50 countries in 1998. In contrast, it had required a decade to reduce the number of endemic countries from 125 in 1988 to 50 in 1998. However, the TCG also stated that poliovirus transmission was likely to continue in as many as 20 countries after the year 2000, albeit at low levels in most. The TCG concluded that global certification of polio eradication in 2005 can be achieved if high-quality intensified efforts are rapidly undertaken, resulting in the interruption of transmission in all countries within 12–24 months of the eradication target date.

Through polio eradication, the public health infrastructure has been markedly strengthened, with substantial investments in the cold chain, transport and communications systems of developing countries. In many countries this has been accompanied by marked improvements in immunization programme management, disease surveillance and laboratory services. In addition, vitamin A supplements have been administered to children in over 60 countries, saving over 300 000 lives in 1998 and 1999 alone.[7]

1 *Global poliomyelitis eradication by the year 2000: plan of action*. WHO/EPI/GEN/96.03.
2 WHA41.28 Global eradication of poliomyelitis by the year 2000.
3 *Plan of Action for Implementing the World Declaration on the Survival, Protection and Development of Children in the 1990s*, UNICEF, 1990.
4 Bart KJ, Foulds J, Patriarca P. The global eradication of poliomyelitis: benefit-cost analysis. *Bulletin of the World Health Organization* 1996; 45:911-4.
5 Data as of 31 August 2000.
6 *Report of the fifth meeting of the Global Technical Consultative Group for Poliomyelitis Eradication, Geneva, 8-10 May, 2000* (in print).
7 Ching P et al. The childhood mortality impact of integrating vitamin A supplements with immunization campaigns. *American Journal of Public Health 2000* (in print).

1.2 Polio eradication strategies and quality of implementation

Four basic strategies have proven successful to eradicate polio. These are: (1) high routine infant immunization coverage with at least four doses of oral polio vaccine (OPV) in the first year of life; (2) supplementary doses of OPV to all children aged < 5 years via NIDs; (3) acute flaccid paralysis (AFP) surveillance with laboratory investigation of all cases; and (4) house-to-house mop-up campaigns to interrupt the final chains of polio transmission.

The single greatest factor determining when polio virus transmission will be interrupted is the quality of SIAs (supplementary immunization activities) and certification-standard AFP surveillance. Poor quality activities result in:

- Persistent poliovirus transmission because children are missed during SIAs, such as NIDs.
- Late detection of polio-infected areas due to inadequate surveillance in several countries and populations.
- Accumulation of large numbers of susceptible children due to low routine immunization coverage with OPV in countries with weak immunization delivery systems, including conflict-affected countries. ❒

Figure 1: The 30 polio-endemic countries (categorized by documented or probable wild poliovirus transmission) and the three countries with imported wild poliovirus, end of 1999

2. The Strategic Plan 2001–2005: goal, objectives, timeline and key milestones

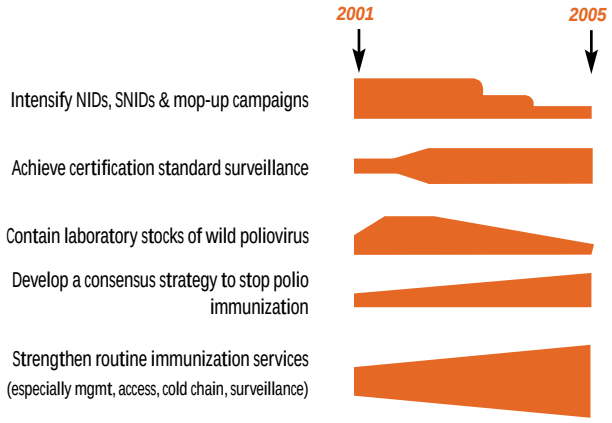
The ***goal*** of the 2001–2005 Strategic Plan is to define the scope of work needed to interrupt transmission of wild poliovirus globally within two years of the year 2000 eradication target set by the World Health Assembly in 1988, and to certify poliomyelitis eradication by the end of 2005.

The ***objectives*** of the Strategic Plan are to:

- Interrupt wild poliovirus transmission with effective and high quality NIDs and mop-up campaigns and provide extra doses of oral polio vaccine to children until global certification.
- Develop and sustain certification-standard surveillance and laboratory systems that can rapidly identify polio-infected areas.
- Ensure laboratory containment of wild poliovirus stocks.
- Develop a consensus strategy to stop polio immunization after certification of eradication.
- Use polio eradication to strengthen and expand immunization services.

The general ***timeline*** to be followed in implementing the components of the Strategic Plan is outlined in the schematic below (Figure 2).

Figure 2: Implementation timeline of the Strategic Plan 2001-2005



The key ***milestones*** of the plan are:

- By the end of 2000, a maximum of 20 countries will be polio-endemic.
- By the end of 2001, a maximum of 10 countries will be polio-endemic and certification-standard surveillance will be achieved by all endemic and recently-endemic countries.
- By the end of 2002, poliovirus transmission will be interrupted globally and the containment process will have began in all WHO regions.
- By the end of 2003, global wild poliovirus final repositories will be identified.
- By the end of 2004, a consensus strategy will be developed to stop polio immunizations.
- By the end of 2005, global certification of poliomyelitis eradication will be achieved, and routine immunization systems will be strengthened with a targeted coverage of 80% in 80% of districts globally. ❐

3. Components of the Strategic Plan 2001–2005

The Strategic Plan consists of five main components, as detailed below. Each country will prioritise implementation of these components based upon their polio-endemic status as either: (1) endemic; (2) recently endemic/high-risk; (3) low-risk; or (4) certified polio-free (Annex 1).

3.1 Intensify NIDs and mop-up campaigns

Intensified and high-quality NIDs and mop-up campaigns must be conducted to interrupt the final chains of transmission in endemic countries and to prevent polio's resurgence in recently endemic countries, either due to polio importation or missed low-level indigenous virus transmission.

From 2000 to 2002, SIAs (NIDs and mop-up campaigns) will be intensified to interrupt virus transmission in the 30 remaining endemic countries and to prevent polio's resurgence in recently endemic, high-risk countries. "Intensification" includes:

- Conducting more than two annual rounds of NIDs.
- Improving the quality of supplementary immunization to reach every child,[8] particularly by:
  - ✔ aggressive use of house-to-house (child-to-child) immunization, particularly in high-risk areas during NIDs/SNIDs.
  - ✔ a multisectoral approach, that involves multiple government (i.e. health, education, transportation, communication, as appropriate) and nongovernmental organizations to reach all children.
  - ✔ detailed micro-planning.
  - ✔ extensive social mobilization.
  - ✔ comprehensive supervision of planning and implementation.
- Rapidly attaining certification-standard AFP surveillance, to guide information for SIA planning, through training, equipping and deploying national and international staff.

The May 2000 Global TCG recommended that all endemic countries conduct more than two annual NID rounds. The TCG-recommended supplementary immunization rounds for each endemic and recently endemic/high-risk country during 2000–2005 are shown in Annex 2. NIDs and mop-up campaigns will be required in all polio-endemic countries and recently endemic countries for the next three to five years. An exact determination of the number and type of SIA rounds required will be made each year at the country level based on the epidemiologic situation in each country and surrounding areas. If high-quality NIDs reach all targeted children, fewer supplementary immunization rounds will be needed. As much experience as possible will be drawn from countries that have consistently and successfully carried out high-quality activities. Mop-up immunization will be instituted in all endemic countries by 2001, as soon as there is adequate surveillance information to indicate focal poliovirus transmission.

Vitamin A will continue to be administered during NIDs and SNIDs.

3.2 Achieve certification-standard surveillance

Certification-standard AFP surveillance,[9] is critical for (1) identifying the remaining chains of virus transmission; (2) targeting NIDs and mop-up campaigns, and (3) certifying global eradication. Intensification of NIDs and mop-up campaigns is dependent on timely and high-quality AFP

[8] *WHO-recommended standards for surveillance of selected vaccine-preventable diseases.* WHO/EPI/GEN/98.01 Rev.1; *Field guide for supplementary activities aimed at achieving polio eradication, 1996 revision,* WHO/EPI/GEN/95.01 Rev. 1.

[9] *Report of the second meeting of the Global Commission for the Certification of the Eradication of Poliomyelitis,* Geneva, 1 May 1997 WHO/EPI/GEN/98.03.

information at national and subnational levels. It is particularly concerning that some countries are stopping SIAs without the quality of AFP surveillance needed to support that decision.

From 2001 to 2005, surveillance activities will be improved to guide intensified NIDs and mop-up campaigns and to document the absence of polio in polio-free countries so that regional and global certification commissions can certify eradication. Active surveillance, involving routine visits to health facilities to search for AFP cases, will be strengthened in all endemic countries. This will be completed following the models used in polio-free regions and in endemic countries that have achieved dramatic improvements in surveillance, such as India.

AFP surveillance is the basis for certification of polio eradication. The Global Commission for the Certification of the Eradication of Poliomyelitis[10] has defined standards for certification including at least three years of zero polio cases due to indigenous wild poliovirus in the presence of certification-standard surveillance, and verification in reports from national certification committees. All WHO Regions have established regional certification commissions. The International Commission for the Certification of Poliomyelitis Eradication (ICCPE) has certified polio's eradication in the Region of the Americas (AMR). The Western Pacific Region (WPR) is expected to be certified polio-free in 2000, and the European Region (EUR) in 2002. Two of the three other regional certification commissions have begun receiving national reports.

3.3 Contain laboratory stocks of wild poliovirus

The last case of smallpox transmission occurred due to an inadvertent laboratory release in Birmingham, England in 1978, about one year after the last case due to indigenous transmission of smallpox occurred in Somalia. In 1998, the WHO global plan of action for laboratory containment of wild polioviruses[11] was developed following broad consultation and public comment. It outlines essential activities to prevent inadvertent release of poliovirus from laboratories.

From 2001 to 2005, implementation of the global plan of action for laboratory containment of wild polioviruses will require that all countries inventory all stocks of wild poliovirus infectious and potentially infectious materials, destroy wild poliovirus in facilities where their use is not essential, and store wild poliovirus stocks of scientific value in secure laboratories.[12] One year after the last wild poliovirus is identified all remaining stocks will need to be placed in maximum containment laboratory(ies) where only essential scientific work would continue. The Global Certification Commission has determined that both the pre-eradication and post-global eradication phases of containment must be completed worldwide before global certification can be considered. The process of inventorying all wild poliovirus stocks has started in AMR, EUR and WPR and will expand to all regions during 2002–2003.

3.4 Develop a consensus strategy for stopping polio immunization

The ultimate benefits of polio eradication, including estimated global savings of US$ 1.5 billion annually, will be gained only after the cessation of polio immunization. In 1998, WHO convened a meeting that concluded that OPV immunization *should* stop and vaccination with inactivated poliovirus *can* stop when (1) wild polioviruses have been eradicated; (2) laboratory stocks of wild polioviruses have been contained; and (3) there is sufficient evidence that vaccine-derived polioviruses will circulate only for a limited period of time.[13]

The research agenda defined by the WHO consultation on stopping polio immunization will be implemented,[14] with focus on studies of the: (1) potential for vaccine-derived viruses to continue circulating after immunization is stopped; (2) magnitude, relevance, and risk of persistent shedding of vaccine virus among immunodeficient persons; and (3) potential need for new or different vaccines as part of a transition strategy to the post-immunization era. Data from these studies will be analysed and used to develop a consensus strategy for stopping immunization. Regardless of the strategy employed for stopping polio immunization, there will be a need to produce and stockpile monovalent

[10] *Report of the fifth meeting of the Global Commission for the Certification of the Eradication of Poliomyelitis, Geneva, 9 May 2000* – document in press.
[11] *WHO global plan of action for laboratory containment of wild polioviruses,* WHO/V& B/99.32.
[12] *Guidelines for implementing the pre-eradication phase of the global action plan for laboratory containment of wild polioviruses, April 2000* WHO/V&B/00.19.
[13] *Report of the meeting on the scientific basis for stopping polio immunization.* WHO/EPI/GEN/98.12.
[14] Hull HH, Aylward RB The scientific basis for stopping polio immunization, *American Journal of Epidemiology 1999; Vol. 150, No. 10: 1022-1025.*

formulations of oral polio vaccine, and possibly inactivated polio vaccine, against the risk of outbreaks in the post-immunization era.[15]

3.5 Strengthen national immunization programmes (EPI)

The infrastructure developed and lessons learned from the Global Polio Eradication Initiative have been applied to strengthen the Expanded Programme on Immunization (EPI) in many countries. There remain, however, missed opportunities to strengthen routine EPI programmes. These were detailed during the meeting "Impact of targeted programmes on health systems: A case study of the Global Polio Eradication Initiative".[16]

From 2001 to 2005, a sharper focus on strengthening routine EPI, within the framework of the Global Alliance for Vaccines and Immunization (GAVI), will be made to secure gains and to systematically build on lessons learned in polio eradication to date. Effective management and supervision, key factors in the eradication of polio, are critical to the development and maintenance of strong routine immunization programmes. Existing immunization services management training modules are being updated to ensure that lessons learned from polio eradication are maximally utilized to strengthen routine immunization programmes.

Polio eradication strategies to access children in areas lacking fixed health services, particularly in conflict-affected countries, have been translated into the Sustainable Outreach Services (SOS) strategy. These innovative strategies, combined with flexible use of the cold chain and vaccine vial monitors (VVMs), will be more systematically utilized. The role of interagency coordinating committees (ICCs) will be expanded in advocating, supporting, and monitoring routine immunization progress. A checklist has been developed for managers to guide actions on improving routine immunization services while improving the quality of polio eradication activities.[16]

Polio eradication will work to the GAVI objective of achieving 80% routine immunization coverage in 80% of districts by 2005. As activities to reach the GAVI objectives are placing great demands on polio-funded immunization (EPI) staff at all levels, it is essential that polio eradication and GAVI activities occur in a complementary way that ensures the likelihood of success of both. The figure below summarizes the overlapping agendas of GAVI and polio eradication (Figure 3). ❐

[15] *New polio vaccines for the post-eradication and post-immunization era, 19-20 January 2000.* WHO/V&B/00.20
[16] Meeting on the impact of targeted programmes on health systems: a case study of the polio eradication initiative. 16-17 December 1999. WHO/V&B/00.29

Figure 3: GAVI and polio eradication priority activities by the country's polio eradication status

	Endemic	*High-risk*	*Low-risk*	*Certified*
Polio eradication objectives				
Attain certification-standard surveillance	✔✔✔	✔✔	✔	✔
Intensify SIAs*	✔✔✔	✔✔✔	✔	✔
Shared polio eradication and GAVI objectives				
EPI assessment/multi-year planning	✔✔✔	✔✔✔	✔✔✔	✔✔✔
Strengthen and expand the ICC mandate	✔	✔✔	✔✔✔	✔✔✔
Strengthen routine immunization services	✔✔✔	✔✔✔	✔✔✔	✔✔✔
GAVI objectives				
Introduce new vaccines	✔	✔✔	✔✔✔	✔✔✔

High priority ✔✔✔
Medium priority ✔✔
Lower priority ✔

*SIAs: Supplementary immunization activities: NIDs/SNIDs/mop-ups

4. Implementation of the Strategic Plan: challenges and solutions

Full implementation of the five main components outlined in the Strategic Plan 2001–2005 will be a challenge. Key challenges to implementation and possible solutions that partners in the eradication initiative can bring to bear are summarized below. In particular, advocacy for polio eradication is required at the global and country level to surmount challenges, ensure sufficient resources are available to all countries, maintain political support, and secure societal support.

4.1 Major challenges

Securing access to all children, especially those in conflict-affected countries

The success of the UN Secretary-General and other global and national-level authorities in establishing access, cease-fires, and "Days of Tranquillity" for NIDs in Afghanistan, Democratic Republic of the Congo, Peru and elsewhere has demonstrated the feasibility of working successfully in conflict-affected areas. These efforts must be expanded, drawing upon the strengths of the UN Secretary-General's office, many UN agencies, the International Red Cross and Red Crescent movement, and other new and existing partners who can operate in countries affected by conflict.

Ensuring adequate financial resources from the public and private sectors

Necessary financial resources must be secured to purchase OPV, plan and implement NIDs, SNIDs and mop-up campaigns (e.g. hiring and deploying all necessary national and international staff, transportation, social mobilization, communications), and cover surveillance and laboratory costs. To ensure sufficient resources, advocacy for the Global Polio Eradication Initiative is required at the global and country levels. Thus far, the Global Polio Eradication Initiative has been mainly dependent on multilateral funding mechanisms and Rotary International, and, more recently, on foundation funding. From 2001 to 2005, stronger efforts will be undertaken to increase public and private sector support for the eradication activities of polio-endemic countries. In particular, bilateral support for the eradication activities of the ten global priority countries (Afghanistan, Angola, Bangladesh, Democratic Republic of the Congo, Ethiopia, India, Nigeria, Pakistan, Somalia and Sudan) will be critical to success.

Maintaining political commitment in all countries

Sustaining political commitment from the highest levels of government is particularly challenging in the face of a disappearing disease, but remains key to ensuring high-quality activities in both polio-endemic and polio-free countries. Some polio-endemic countries plan to stop NIDs despite having surveillance below certification standard. Experience has conclusively demonstrated that such actions jeopardize progress because low-level poliovirus transmission can continue undetected for years in areas with suboptimal surveillance. Political commitment, particularly monitoring by the head of state of the progress towards eradication, is key to:

- Improve the quality of NIDs and other SIAs so that house-to-house immunization activities reach all children by, for example, enlisting multisectoral support.
- Implement early and aggressive use of extensive mop-up campaigns.
- Improve or maintain the quality of AFP surveillance.
- Improve or maintain routine immunization coverage.

In polio-free countries, political commitment is needed for maintaining SIAs to protect against importation of wild poliovirus, attaining certification-standard surveillance, and achieving laboratory containment of poliovirus stocks.

4.2 Other challenges

Enlisting interagency coordination at country level

Interagency coordination is essential to ensure adequate resources and to coordinate the polio eradication activities being conducted by government, international agencies, NGOs, the private sector, and volunteers. The years 2001–2005 will see an increased role of the ICC in every country. ICCs should play a key role in assuring that the quality of activities is monitored and that feedback is provided to decision-makers. WHO and UNICEF representatives will play an active role to monitor and report to ministers of health and heads of state about polio eradication progress and challenges.

Identifying, training, and deploying sufficient human resources

Sufficient numbers of properly trained, equipped, and supervised personnel must be available to support national immunization programmes during the eradication and certification phase. Approximately 900 national and international immunization staff are now funded through the Polio Eradication Initiative. Drawing from the experience of countries that have rapidly implemented quality activities, approximately 1 000 additional national and international staff must be rapidly placed at the national and subnational levels in the most difficult countries. These staff will initially ensure high quality SIAs and AFP surveillance, and during later years will integrate the control of other vaccine preventable diseases into their scope of work. Additional WHO and UNICEF staff will be needed to support polio eradication activities in the remaining endemic countries.

Strengthening management and administration

Strong management and administration is key to ensuring timely implementation of all eradication activities, but is often weak in polio-endemic countries. Stronger management, both at government levels and by implementing partners, must enhance polio eradication activities in endemic countries. Management will be strengthened through a combination of activities including management assessments, training, increased use of management consultants, use of private sector and NGOs for services in which these sectors can provide comparatively superior performance, such as financial auditing. Managers will be held accountable for training and monitoring the quality of work by staff. Greater administrative capacity will be achieved through assignment of additional administrative staff in key polio-endemic countries.

Ensuring an adequate vaccine supply

A sufficient supply of OPV that meets WHO prequalification standards (or the standards of the country in which the vaccine will be used) must be available for both routine and supplemental immunization activities. During 1999 and 2000, OPV shortfalls occurred due to rapid implementation of accelerated polio eradication activities and production problems by vaccine manufacturers. To ensure an adequate and timely OPV supply for planned SIAs detailed in Annex 2, the following will be undertaken during 2000 and subsequent years: (1) WHO, UNICEF, and vaccine manufacturers will further streamline information exchange; (2) ministries of health, WHO and UNICEF will strengthen vaccine forecasting, planning, and coordination with manufacturers and donor governments; (3) partners will implement training to strengthen management skills; and (4) partners will adhere to guidelines for cold chain requirements and use of VVMs.

Improving social mobilization

Markedly enhanced social mobilization efforts will be essential to improving NIDs/SNIDs/mop-up quality. Social mobilization efforts will enlist key community networks and leaders – such as religious organizations and women's groups – to ensure that appropriate messages are developed and delivered to the target population. Multifaceted mechanisms will be enlisted to transmit messages, including use of the media (print, radio and television), banners, posters, and megaphones. Additional staff will be enlisted to support these activities.

Communicating the progress of the Global Polio Eradication Initiative

Effective communication is an essential element for all of the components of this Strategic Plan. Communication issues include meetings to ensure exchange of experience and information (e.g. between EPI programme managers and laboratory directors); technical policy meetings held annually to review progress and further develop policies within the global initiative; media coverage for public awareness and advocacy, and newsletters for feedback to all health staff. ❐

5. The role of partners

The partnership to eradicate polio is spearheaded by:

■ World Health Organization (WHO)

WHO, through its headquarters, regional, and country offices, provides the overall technical direction and Strategic Planning for the management and coordination of the Global Polio Eradication Initiative. WHO is responsible for ensuring all components of the Strategic Plan are technically sound and well implemented. WHO has a key role in monitoring and evaluation of all aspects of the plan as well as coordination of operational/basic science research, operational support to ministries of health, and training/deployment of human resources. In addition, WHO has a lead role in establishing certification standard AFP surveillance (including the polio laboratory network), resource mobilization, donor coordination, advocacy, (e.g. for political commitment), and communication of information.

■ Rotary International

Through its PolioPlus program, Rotary International has been a key partner in stimulating, developing, and maintaining the Global Polio Eradication Initiative. By the end of 2005, Rotary estimates that its financial contributions alone to the initiative will total US$ 500 million. In addition, Rotary advocates for additional resources from governments and the private sector, and provides thousands of volunteers to assist with social mobilization, NIDs, and other activities.

■ US Centers for Disease Control and Prevention (CDC)

CDC provides technical, laboratory, and programmatic assistance to the Global Polio Eradication Initiative in the development of technical policies and plans of action; supports implementation and evaluation of activities; supports the development of technologies, materials, and training for disease surveillance; conducts investigation of epidemics and epidemiological/operational /laboratory research; provides funding for OPV for SIAs and long-term staff; and participates in the development and monitoring of the laboratory network. CDC is a lead partner in the containment and stopping immunization components of the Strategic Plan.

■ United Nations Children's Fund (UNICEF)

UNICEF is a lead partner in procurement and distribution of vaccine for routine and supplementary immunizations; implementation of intensified NIDs/SNIDs/mop-up campaigns; and strengthening of routine immunization components of the Strategic Plan. UNICEF provides technical assistance to national coordinators in developing action plans and securing logistics to access hard-to-reach places, including countries in conflict. UNICEF also participates in the global process by which eradication policies and plans of action are developed; develops materials for training and public information; strengthens social mobilization efforts through its network of communications officers; and provides cold chain support. UNICEF is also an active partner in resource mobilization and advocacy.

Other key partners:

Governments of polio-endemic and recently endemic countries are the key partners in the initiative, undertaking all polio eradication activities outlined in this Strategic Plan. Donor governments play a central role through the provision of both bilateral and multilateral support.

Other international organizations (e.g. UN funds, agencies, and programmes), foundations and corporations also support the Global Polio

Eradication Initiative at the global level. Financial donors at the global level of the initiative include:

- **Foundations:**
  - Rotary Foundation
  - Bill & Melinda Gates Foundation
  - United Nations Foundation
  - Organization of the Petroleum Exporting Countries (OPEC) Foundation

- **Corporations:**
  - Aventis Pasteur
  - De Beers
  - International Federation of Pharmaceutical Manufacturers Association (IFPMA), representing Pasteur Mérieux Connaught (now Aventis Pasteur), Chiron, Smith-Kline Beecham, and Wyeth-Lederle.

- **Multilateral agencies:**
  - European Union
  - World Bank

Nongovernmental organizations (NGOs), and humanitarian organizations such as the International Red Cross and Red Crescent movement, Médecins San Frontières (MSF), Save the Children Fund, World Vision, CARE, and the umbrella-organization CORE, are also key partners, particularly through assisting with microplanning, training, transport, surveillance and administration of supplementary immunization. Many NGOs play a unique role in accessing children in hard-to-reach areas, such as in conflict-affected countries.

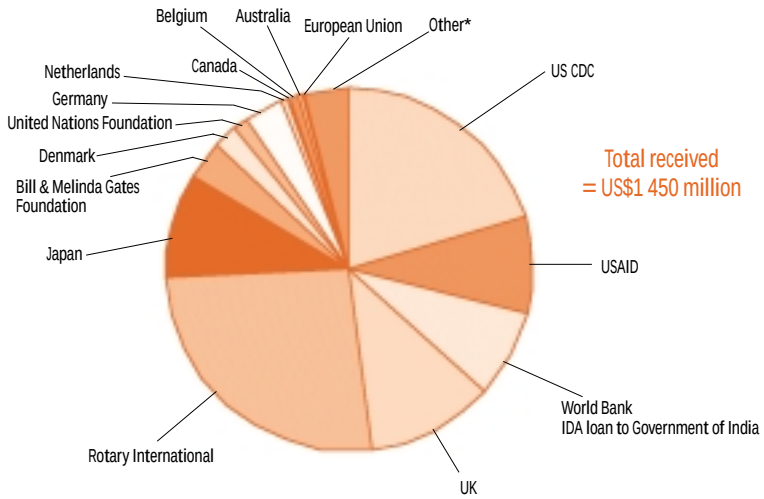
Additional partner organizations play critical roles at the regional and country levels to support polio eradication. Of particular note is the Micronutrient Initiative of Canada whose support includes ensuring administration of vitamin A capsules during NIDs and development of training materials. UN funds, agencies, and programmes such as the World Food Programme, United Nations High Commissioner for Refugees, United Nations Office for the Coordination of Humanitarian Affairs and Operation Lifeline Sudan, have been key to implementing SIAs. Specific activities of these partner organizations include:

- Participation in ICCs at country, regional, and global levels.
- Provision of financial and human resources.
- Technical support.
- Strategy implementation at country level through, for example, volunteers for social mobilization and NIDs, transportation, and communications.

Civil society advocates and special ambassadors: leading celebrities from the arts, sciences, entertainment, and sports fields provide their personal talents to increase the profile of the eradication initiative. Key advocates for the polio eradication initiative include UNICEF Special Representatives Ms Mia Farrow, Ms Claudia Schiffer, WHO Goodwill Ambassador Ms Martina Hingis, basketball star Mr Dikembe Mutombo, renowned photographer Lord Snowdon and the Federation Internationale de Football Association (FIFA).

Financial resources provided have supported all aspects of the initiative, including planning of national polio eradication activities, social mobilization and training; strengthening of laboratory capacity; and review meetings and evaluations. ❐

Figure 4: Past contributions received, 1985-2000



* Other includes past contributions from the Agency for Cooperation in International Health (Japan); American Association for World Health (USA); Aventis Pasteur; Custom Monoclonals International (USA); De Beers; Finland; Institut Mérieux; Ms Martina Hingis; Italy; Japanese Committee for "Vaccines for the World's Children"; Malaysia; Millennium Fund; Norway; Portugal; Republic of Korea; Smith-Kline Biologicals; Switzerland; United Arab Emirates; WHO Casual Income; WHO and UNICEF Regular Budget.

6. Financial resource requirements, 2001–2005

Global estimates of the external resources required for polio eradication through the end of 2005 are based on the costs of (1) implementing the eradication strategies at the country level; and (2) managing the initiative through the UN implementing agencies (WHO and UNICEF) at the regional and headquarters levels. These external resource requirements do not include the costs covered by national governments conducting eradication activities.

As of September 2000, US$ 1 billion in external resources was estimated as required to implement polio eradication activities from 2001 until 2005. With existing and projected commitments at that time, the funding shortfall was estimated at US$ 450 million (Figure 5).

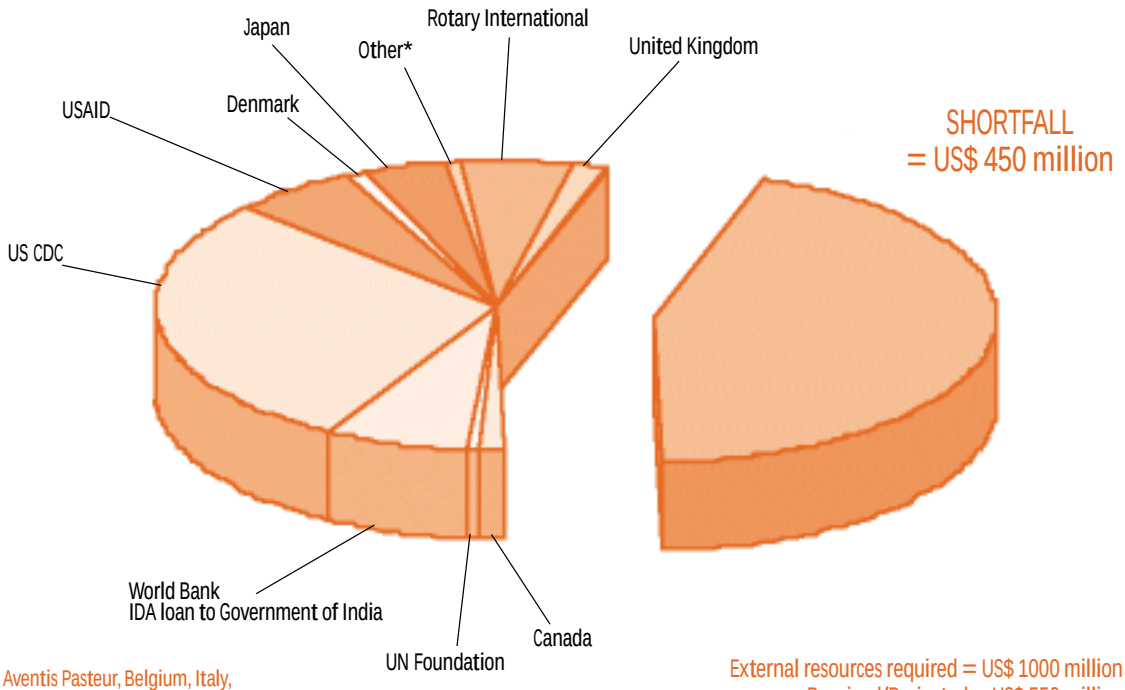
The majority of this shortfall, US$ 275 million, is required during 2001 and 2002 (Figure 6).

A failure to interrupt transmission within the next 12-24 months (outlined in Annexe 3) will increase the cost of the programme by an estimated US$ 200 million.

The annual global savings after polio eradication will be approximately US$ 1.5 billion.[17] ❐

[17] Bart KJ, Foulds J, Patriarca P. The global eradication of poliomyelitis: benefit-cost analysis. *Bulletin of the World Health Organization*, 1996; 45:911-4.

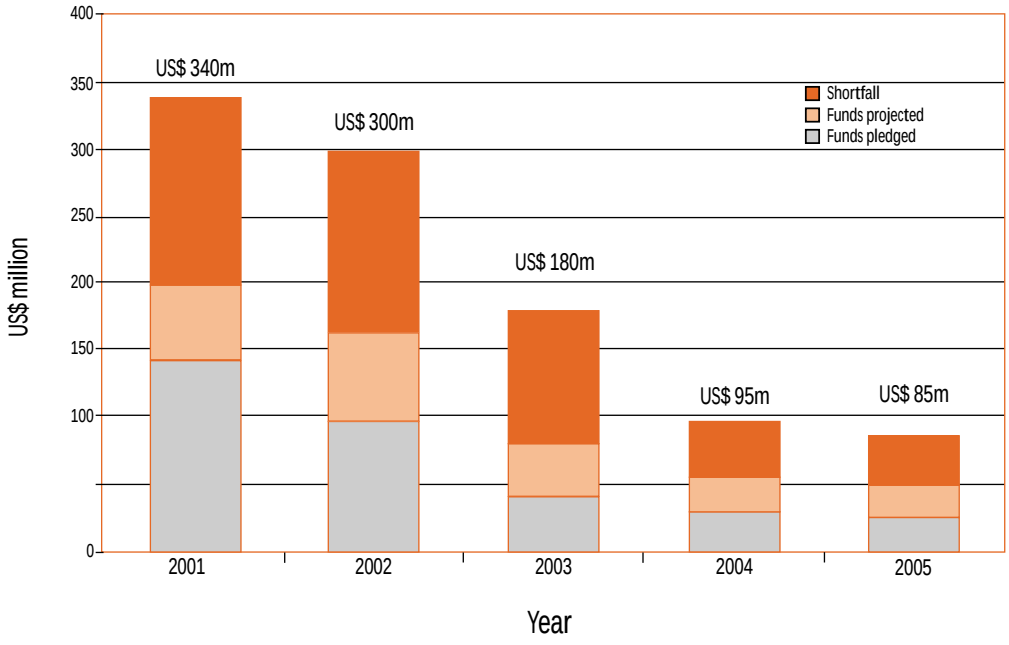
Figure 5: Projected contributions, 2001-2005



* Aventis Pasteur, Belgium, Italy, Norway and WHO Casual Income.

External resources required = US$ 1000 million
Received/Projected = US$ 550 million

Figure 6: Status of financial resource requirements by year



7. Beyond 2005: activities during the post-certification era

The ultimate benefits of the Global Polio Eradication Initiative will only be attained after the consensus strategy on stopping polio immunization is implemented following certification of global polio eradication in 2005. Before polio immunizations can be stopped, the final phase of activities in the global plan of action for the containment of polioviruses must be implemented, namely transfer of all infectious and potentially infectious materials to maximum biosafety containment facilities. During and after the cessation of polio immunization, high-quality surveillance must be maintained to identify any outbreaks that might occur due to inadvertent release of polioviruses. Stockpiles of polio vaccines will be needed to respond to any such outbreaks.

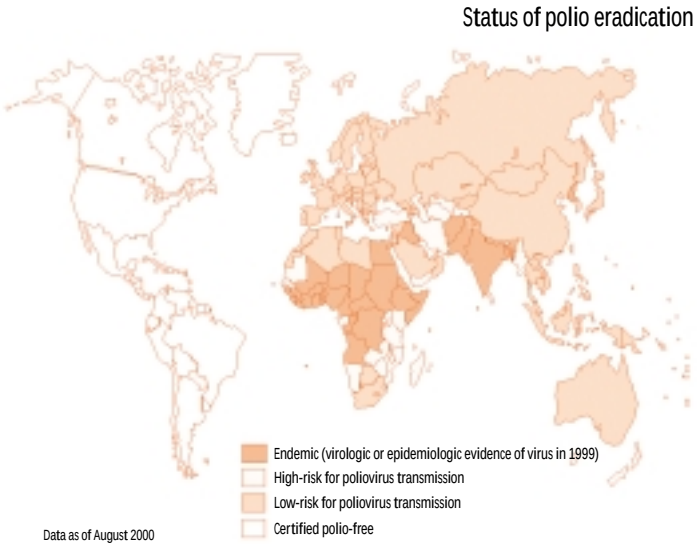
The full scope and costs of these activities will be defined with the implementation of the appropriate component of the Strategic Plan 2001–2005. ❐

Annex 1: Priority actions by countries according to status of polio eradication

Endemic countries (30 countries at end of year 1999)

Definition: countries with virological and/or epidemiological evidence of endemic poliovirus circulation during the past 12 months.

Priorities:
- Intensify NIDs and conduct mop-up campaigns every year until poliovirus transmission is interrupted.
- Improve surveillance to accurately target NIDs and mop-up campaigns.
- Strengthen routine immunization activities.



Recently endemic/high-risk countries (25 countries at end of year 1999)

Definition: countries with no polio detected for > 1 year, but at high risk of ongoing low-level indigenous virus or sustained transmission of imported virus due to: (1) geographic proximity to an endemic country, (2) low routine immunization coverage, and/or (3) inadequate surveillance.

Priorities:
- Maintain NIDs (or SNIDs if low routine coverage is limited to specific areas).
- Establish certification-standard surveillance.
- Conduct inventory of laboratory stocks for containment purposes.
- Strengthen routine immunization services.

Low-risk countries (101 countries at end of year 1999)

Definition: countries with no polio detected for > 1 year and at low risk of indigenous virus or sustained transmission of imported virus due to (1) high routine immunization coverage; (2) lack of proximity to endemic countries; and/or (3) maintenance of high-quality surveillance.

Priorities:
- Achieve/maintain certification-standard surveillance.
- Inventory laboratory stocks for containment purposes.
- Strengthen routine immunization services.
- Conduct polio supplementary immunization activities in areas of low coverage.

Countries certified polio-free (36 countries at end of year 1999)

Definition: countries certified polio-free by a regional certification commission (only AMR as of 15 August 2000).

Priorities:
- Contain laboratory stocks of polioviruses.
- Maintain certification-standard surveillance.
- Strengthen routine immunization services.
- Consider polio supplementary immunization activities in areas of low coverage.

Annex 2: Rounds of supplementary immunization activities in polio-endemic and recently endemic/high-risk countries

Based on the Global TCG recommendations[1], the two tables below summarize the SIAs projected for 2000 through 2005. The numbers represent rounds of NIDs, unless otherwise noted. In addition, mop-up campaigns targeting at least 20% of children aged < 5 years are planned each year from 2001–2004 in endemic countries. All endemic countries should plan for full NIDs, with the possibility of downgrading some activities to SNIDs, depending on the local epidemiology and quality of surveillance.

Section 1: Polio-endemic countries:* number of NIDs rounds

	2000	2001	2002	2003	2004	2005
AFR						
W. Africa						
Benin	2 + 2	2 + 2	2 + 2	2	2	2
Burkina Faso	2	2 + 2	2 + 2	2	2	2
CIV	2 + 2	2 + 2	2 + 2	2	2	2
Ghana	2 + 2	2 + 2	2 + 2	2	2	2
Guinea	2	2 + 2	2 + 2	2	2	2
G-Bissau	2	2 + 2	2 + 2	2	2	2
Mali	2	2 + 2	2 + 2	2	2	2
Niger	2 + 2	2 + 2	2 + 2	2	2	2
Nigeria	3	2 + 3	2 + 3	2 + 3	2	2
Liberia	2 + 2	2 + 2	2 + 2	2	2	2
Sierra Leone	2 + 2	2 + 2	2 + 2	2	2	2
Togo	2	2 + 2	2 + 2	2	2	2
C. Africa						
Cameroon	2	2 + 2	2 + 2	2	2	2
CAR	2	2 + 2	2 + 2	2	2	2
Chad	2 + 3	2 + 3	2 + 3	2	2	2
Congo	3	3	3	3	2	2
DRC	3	3	3	3	2	2
E. Africa						
Eritrea	2	2 + 2	2	2	2	2
Ethiopia	2 + 2	2 + 2	2	2	2	2
S. Africa						
Angola	3 + 2	3 + 2	3 + 2	3	2	2
EMR						
Afghanistan	2 + 2	2 + 3	2 + 2	2	2	2
Egypt	2 + 2	2 + 2	2	2	2	2
Iraq	2 + 2	2 + 2	2	2	2	2
Pakistan	2 + 2	2 + 3	2 + 2	2	2	2
Somalia	2 + 3	2 +3	2 + 2	2	2	2
Sudan	2 + 2	2 + 2	2 + 2	2	2	2
SEAR						
Bangladesh	2 + 2	2 + 2	2 + 2	2	2	2
India						
26 states	3	2	2	2	-	-
India						
4 states	3 + 2	2 + 2	2 + 2	2	2	2
DPR Korea	2	2 + 2	2	2	0	0
Nepal	3	2 + 2	2	2	2	2

*as of end 1999

1 *Report of the fifth meeting of the Global Technical Consultative Group for Poliomyelitis Eradication, Geneva, 8-10 May, 2000* (in print).

Section 2: Recently endemic/high-risk countries:* number of NIDs rounds (unless SNIDs specified)

	2000	2001	2002	2003	2004	2005
AFR						
Burundi	2	2	SNIDs	SNIDs	-	-
Eq. Guinea	2	2	2	SNIDs	-	-
Gabon	2	2	2	2	2	2
Gambia	2	2	SNIDs	-	-	-
Kenya	2	2	SNIDs	SNIDs	-	-
Madagascar	-	2	SNIDs	-	-	-
Malawi	-	2	SNIDs	-	-	-
Mauritania	2	2	SNIDs	-	-	-
Mozambique	-	2	2	2	-	-
Namibia	2	2	2	-	-	-
Rwanda	-	2	SNIDs	SNIDs	-	-
Senegal	2	2	SNIDs	-	-	-
Tanzania	SNIDs	2	SNIDs	SNIDs	-	-
Uganda	SNIDs	2	SNIDs	SNIDs	-	-
Zambia	-	2	SNIDs	SNIDs	-	-
Zimbabwe	-	2	SNIDs	-	-	-
EMR						
Djibouti	2	2	2	-	-	-
Iran	SNIDs	SNIDs	SNIDs	SNIDs	-	-
Yemen	2	2	SNIDs	-	-	-
EUR						
Tajikistan	2	2	2	-	-	-
Turkey	2	SNIDs	SNIDs	SNIDs-	-	-
Turkmenistan	2	2	2			
Uzbekistan	2	2	2	-	-	-
SEAR						
Myanmar	2+SNIDs	2	2	SNIDs	SNIDs	SNIDs
Sri Lanka	2	2	SNIDs	SNIDs		

Section 3: Low-risk and certified countries*

Many low-risk and certified countries must continue to guard against polio importations by conducting SIAs, either full NIDs or SNIDs. For example, virtually all certified countries of AMR are planning to continue full NIDs through 2005, the target date for global certification. Similarly, the Global TCG stated that NIDs must be continued in all countries recently endemic for polio. Discontinuation of NIDs should only be considered in countries with OPV coverage > 80%, no documented wild poliovirus for the last three years, and certification-standard surveillance for at least one year. Global vaccine forecasts take these recommendations into account.

*as of end 1999

Annex 3:
Annual objectives for years 2000-2005

Table 1: Milestones to be achieved by end of year 2000

▼ Objectives	▼ Milestones 2000
Interrupt transmission of wild poliovirus	◆ Transmission of wild poliovirus Type 2 will be stopped globally ◆ Wild poliovirus transmission (all types) will be stopped in 1. All countries of AMR, EUR, and WPR. 2. All countries of AFR except for 13 countries, primarily in central and west Africa. 3. All countries of EMR except for four countries of northern Africa and south Asia. 4. All countries of SEAR except for three countries.
Intensification of NIDs and mop-up campaigns	◆ All remaining reservoir or conflict-affected endemic countries will have conducted at least three consecutive rounds or four total rounds of intensified NIDs. ◆ At least two rounds of NIDs annually will be synchronized among all countries sharing borders with poliovirus reservoirs. ◆ Synchronized NIDs will be conducted by at least 17 countries in west and central Africa, with plans developed for synchronized rounds in 2001 and 2002. ◆ Plans for strengthening the quality of NIDs will be developed by all remaining endemic countries. ◆ ICCs in all endemic countries will monitor and report on the quality of NIDs.
Certification-standard surveillance	◆ WPR will be certified as polio-free. ◆ All SEAR and EMR countries will have certification-standard AFP surveillance. ◆ All polio-endemic and recently endemic countries will have access to a WHO-accredited laboratory in the Global Polio Laboratory Network.
Containment of wild poliovirus stocks	◆ The global plan of action for containment will be published. ◆ Generic global guidelines on implementation of containment will be published, and regional guidelines for WPR, EUR, EMR, and AMR completed. ◆ A national inventory of all WPR countries will be completed. ◆ National plans of action, task force, and inventory process will be started in all EUR countries and 14 non-endemic EMR countries. ◆ Requirements will be established for polio vaccine manufacturers in the post-eradication and post-OPV phases. ◆ Interim regional wild poliovirus repositories will be established.
Consensus strategy for stopping immunization	◆ A research plan will have been established and initiated to determine the strategy for stopping immunization.
Strengthening routine immunization services	◆ A checklist for managers to strengthen EPI while improving the quality of polio eradication activities will be field tested. ◆ Guidelines for Sustainable Outreach Services (SOS) will be published and implementation initiated in four pilot countries. ◆ Polio eradication will be included in the GAVI application process.

Table 2: Milestones to be achieved by end of year 2001

▼ Objectives	▼ Milestones 2001
Interrupt transmission of wild poliovirus	◆ Wild poliovirus transmission will be stopped in all countries except five to ten countries in Asia and Africa.
Intensification of NIDs and mop-up campaigns	◆ All endemic countries will conduct either at least four rounds of intensified NIDs or three consecutive NIDs (with SNIDs in high risk areas) as well as mop-up campaigns (except India that will conduct two rounds of NIDs and two SNIDs.)
Certification-standard surveillance	◆ All countries in AFR will achieve certification-standard surveillance. ◆ The South-East Asia and Eastern Mediterranean regional certification commissions will have established national certification committees in all countries.
Containment of wild poliovirus stocks	◆ National inventories will be completed and all wild polivirus infectious and potentially infectious materials will be contained under BioSafetyLevel(BSL)-2/polio conditions in AMR, EUR, WPR and 14 countries of EMR. ◆ Regional guidelines for implementation will be created in AFR and SEAR. ◆ National plans of action, task force, and inventory process will start in remaining EMR countries where polio transmission has been stopped. ◆ Interim wild poliovirus repositories will be examined and validated in AMR, EUR and WPR.
Consensus strategy for stopping immunization	◆ All research studies to determine the strategy for stopping vaccination will be at least at the data collection phase.
Strengthening routine immunization services	◆ The lessons learned from polio eradication will be applied for use in strengthening routine immunization programmes, including use of the checklist to optimize the impact of polio eradication on immunization systems. ◆ Immunization management training modules will begin to be updated to incorporate lessons learned from polio eradication.

Table 3: Milestones to be achieved by end of year 2002

▼ Objectives	▼ Milestones 2002
Interrupt transmission of wild poliovirus	◆ Wild poliovirus transmission will be stopped in all countries.
Intensification of NIDs and mop-up campaigns	◆ Intensified NIDs will continue in Angola, DR Congo and Nigeria. ◆ NIDs or SNIDs, and mop-up campaigns will continue in all countries that were endemic or high-risk in 2000 or 2001.
Certification-standard surveillance	◆ EUR will be certified as polio-free. ◆ Certification-standard surveillance will be maintained. ◆ National certification committees will be established in all AFR countries. ◆ The role of environmental surveillance will be defined.
Containment of wild poliovirus stocks	◆ Global certification containment requirements will be implemented in AMR and EUR (upgrade to BSL-3/polio). ◆ Global certification containment conditions will be completed in WPR (completion of upgrade to BSL-3/polio) ◆ Interim wild poliovirus repositories will be examined and validated in AFR and SEAR.
Consensus strategy for stopping immunization	◆ Multiagency meeting will be held to assess the status and findings of research studies.
Strengthening routine immunization services	◆ ICCs will monitor routine immunization services in all recently endemic countries. ◆ Updated immunization management guidelines will be completed.

Table 4: Milestones to be achieved by end of year 2003

▼ Objectives	▼ Milestones 2003
Intensification of NIDs and mop-up campaigns	◆ NIDs and mop-up campaigns will be conducted in all countries endemic in 2002. ◆ All countries that were high-risk in 1999 will conduct NIDs or SNIDs.
Certification-standard surveillance	◆ The Global Certification Comission will have defined supplementary data that will be needed for global certification from all previously certified regions. ◆ Supplemental surveillance will be initiated as recommended by the Global Certification Commission. ◆ Certification mechanisms will be established for countries/areas lacking access to a national commission. ◆ All AFR countries will have a national certification committee.
Containment of wild poliovirus stocks	◆ AMR and EUR will attain global certification containment requirements. ◆ National inventories and containment of wild poliovirus infectious and potentially infectious materials will be achieved under BSL-2/polio conditions in all countries of AFR, EMR and SEAR. ◆ Preparations will begin to establish final global wild poliovirus repository(ies).
Consensus strategy for stopping immunization	◆ All research to determine the strategy for stopping vaccination will be completed. ◆ A preliminary report on the consensus strategy will be presented to the World Health Assembly.
Strengthening routine immunization services	◆ ICCs will use the success of the Polio Eradication Initiative to advocate to national leadership on the importance of immunizations and GAVI.

Table 5: Milestones to be achieved by end of year 2004

▼ Objectives	▼ Milestones 2004
Intensification of NIDs and mop-up campaigns	◆ NIDs and mop-up campaigns will be conducted in all countries that were endemic in 2002. ◆ NIDs or SNIDS will continue in all countries endemic in 2000.
Certification-standard surveillance	◆ Certification-standard surveillance will be maintained in all countries.
Containment of wild poliovirus stocks	◆ Implementation of containment requirements for global certification in AFR, EMR and SEAR will start (upgrade to BSL-3/polio). ◆ Final global wild poliovirus repository(ies) will be examined and validated. ◆ Consensus building for post-OPV era containment procedures will begin.
Consensus strategy for stopping immunization	◆ Analysis of research data will be completed and draft guidelines for stopping polio vaccinations will be completed. ◆ Global consensus will be established for stopping vaccination.
Strengthening routine immunization services	◆ GAVI and polio eradication activities will be fully integrated.

Table 6: Milestones to be achieved by end of year 2005

▼ Objectives	▼ Milestones 2005
Intensification of NIDs and mop-up campaigns	◆ Conduct NIDs and/or SNIDs in any remaining high-risk countries at least until global certification is achieved.
Certification-standard surveillance	◆ All regions will be certified polio-free and global certification will be achieved. ◆ Supplemental surveillance will be completed as recommended by the Global Certification Commission.
Containment of wild poliovirus stocks	◆ Containment requirements for certification will be attained globally. ◆ Final global wild poliovirus repository(ies) will be operational. ◆ The draft global plan of action for post-OPV era containment procedures will be developed.
Consensus strategy for stopping immunization	◆ Specific recommendations for stopping polio immunization will be presented to the World Health Assembly for endorsement.
Strengthening routine immunization services	◆ National polio-funded staff will be assimilated into routine immunization programmes, and will continue to work toward the GAVI goal of reaching routine EPI coverage of 80% in 80% of districts globally. ◆ All countries that included vitamin A in NIDs have integrated vitamin A into routine immunization programmes, as appropriate.